REV. 10/94 For Other Than A Small Entity

Docket No. Mach-2 CONT

Applicant(s)

Bernard F. Mach et al.

Serial No.

08/484,786

Filed

June 7, 1995

For

DNA SEQUENCES CODING FOR THE DR BETA-CHAIN

LOCUS OF THE HUMAN LYMPHOCYTE ANTIGEN

COMPLEX AND POLYPEPTIDES, DIAGNOSTIC TYPING

PROCESSES AND PRODUCTS RELATED THERETO

Group Art Unit :

1805

Examiner

Not Yet Assigned

August 30, 1995

Hon. Assistant Commissioner
 for Patents
Washington, D.C. 20231

TRANSMITTAL LETTER

sir:

Transmitted herewith: [] a Preliminary Amendment; [] a Response to Examiner's Action; [] a Supplemental Amendment; [] a substitute Specification; [] a Declaration; [] a Supplemental Declaration; [] a Power of Attorney; [] an Associate Power of Attorney; [] a Supplemental Information Disclosure Statement [] formal drawings; [X] Information Disclosure Statement (in duplicate) to be filed in the above-identified patent application.

FEE FOR ADDITIONAL CLAIMS

- [X] A fee for additional claims is not required.
- [] A fee for additional claims is required.

The additional fee has been calculated as shown below:

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TOTAL CLAIMS	-	20	*	=		х	\$22 =	\$	-0-
INDEPENDENT CLAIMS	-	5	**	202		х	\$76 =	\$	-0-
FIRST PRESENT MULTIPLE DEPE		M				+	\$240	= \$	-0-
* If less than 20, insert 20.						ТО	TAL	\$	

^{**} If less than 3, insert 3.

- [] A check in the amount of \$_____ in payment of the filing fee is transmitted herewith.
- [X] The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 C.F.R. § 1.16, in connection with the paper(s) transmitted herewith, or credit any overpayment of same, to deposit Account No. 06-1075. A duplicate copy of this transmittal letter is transmitted herewith.
- [] Please charge \$_____ to Deposit Account No. 06-1075 in payment of the filing fee. A duplicate copy of this transmittal letter is transmitted herewith.

EXTENSION FEE

Hereby

Correspor

ndence

- [] The following extension is applicable to the Response filed herewith; [] \$110.00 extension fee for response within first month pursuant to 37 C.F.R. § 1.17(a); [] \$370.00 extension fee for response within second month pursuant to 37 C.F.R. § 1.17(b); [] \$870.00 extension fee for response within third month pursuant to 37 C.F.R. § 1.17(c); [] \$1,360.00 extension fee for response within fourth month pursuant to 37 C.F.R. § 1.17(d).
 - [] A check in the amount of [] \$110.00; [] \$370,00; [] \$1,360.00; in payment of the extension fee is transmitted herewith.
 - [X] The Commissioner is hereby authorized to charge payment of any additional fees required under 37 C.F.R. § 1.17 in connection with the paper(s) transmitted herewith, or to credit any overpayment of same, to Deposit Account No. 06-1075. A duplicate copy of this transmittal letter is transmitted herewith.

[] Please charge the [] \$110.00; [] \$370.00; [] \$870.00; [] \$1,360.00; extension fee to Deposit Account No. 06-1075. A duplicate copy of this transmittal letter is transmitted herewith.

James F. Haley, Jr. Reg. No. 27,794

Reg. No. 27,794 Margaret A. Pierri Reg. No. 30,709

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European Patent Applications

84,796*, published August 3, 1983 54,676, published June 30, 1982**

Great Britain Patent Application GB 2,019,408 A, published October 31, 1979

PCT Applications

WO 83/03200, published September 29, 1983WO 82/02060, published June 24, 1982WO 80/01980, published October 2, 1980

<u>Articles</u>

- R. S. Accolla et al., <u>Proc. Natl. Acad. Sci. USA</u>, 78, pp. 4549-51 (1981)
- R. H. Bach et al., N. Engl. J. Med., 295, pp. 806-13 (1976)
- B. Benacerraf in <u>The Role Of The Major Histocompatibility Complex In Immunobiology</u>, M. Dorf, ed., Garland Publishing, pp. 255-69 (1981)
- J. Bohme et al., "Human Class II Major Histocompatibility Antigen B-chains are Derived From at least Three Loci", <u>Nature</u>, 301, pp. 82-84 (1983)
- R. Bono et al., <u>Nature</u>, 299, pp. 836-38 (1982)
- B. Cami et al., "Multiple Sequences Related to Classical Histocompatibility Antigens In The Mouse Genome", <u>Nature</u>, 291, pp. 673-75 (1981)
- S. Carrel et al., Mol. Immunol., 18, pp. 403-11 (1981)
- D. J. Charron et al., <u>J. Exp. Med.</u>, 152, pp. 18s-36s (1980)
- G. Corte et al., <u>Proc. Natl. Acad. Sci. USA</u>, 78, pp. 534-38 (1981) [Corte I]
- G. Corte et al., Nature, 292, pp. 357-60 (1981) [Corte II]

^{*} The publication date of this document postdates the priority dates to Which the present application is entitled under 35 U.S.C. §§ 119 and 120.

^{**} European patent application 54,676 refers to a process for identifying HLA antigen on lymphocytes by incubation with HLA antiserum and complement.

- O. Finn et al., "Multiple HLA-DR Antigens: Detection With Monoclonal Antibodies And Translation <u>In Vitro</u>", <u>Proc. Natl. Acad. Sci. USA</u>, 79, pp. 2658-62 (April 1982)
- S. M. Goyert et al., <u>J. Exp. Med.</u>, 156, pp. 550-66 (August 1982)

Gustafsson et al., "Mutations and Selection in the Generation of Class II Histocompatability Antigen Polymorphism", <u>EMBO J</u>, 3, pp. 1655-61 (1984)

Itakura et al., "Expression in <u>E.coli</u> of a Gene Chemically Synthesized for the Hormone Somatostatin", <u>Science</u>, 198, pp. 1056-63 (1977)

- Y. Kajimura et al., "Entire Amino Acid Sequence Of HLA-DR Beta Chain Deduced From The Cloned Complementary DNA Sequence", <u>J. Cell Biol.</u>, 95, p. 217A (November 1982) [Biol. Abstracts 95:25070862]*
- H. Kratzin et al., Hoppe Seyler's Z. Physiol. Chem., 362, pp. 1665-69 (1981)
- S. Kvist et al., "cDNA Clone Coding For Part Of A Mouse H-2^d Major Histocompatability Antigen", <u>Proc. Natl. Acad. Sci. USA</u>, 78, pp. 2772-76 (1981)
- D. Larhammar et al., "Complete Amino Acid Sequence Of An HLA-DR Antigen-Like ß Chain As Predicted From the Nucleotide Sequence: Similarities with Immunoglobulins and HLA-A, -B and -C Antigens", Proc. Natl. Acad. Sci. USA, 79, pp. 3687-91 (June 1982)
- E. Long et al., "Molecular Cloning Of HLA-DR Antigen cDNA Fragments", Experimentia, 38, p. 744 (1982) [Long I]
- E. Long et al., "Isolation Of Distinct cDNA Clones Encoding HLA-DR Chains By Use Of An Expression Assay", <u>Proc. Natl. Acad.</u>
 <u>Sci. USA</u>, 79, pp. 7465-69 (December 1982) [Long II]
- E. Long et al., "Translation And Assembly Of HLA-DR Antigens In Xenopus Oocytes Injected With mRNA From A Human B-Cell Line", EMBO J., 1(5), p. 649-54 (October 11, 1982) [Chem. Abstracts 97:125456n] [Long III]

Nadler et al., Nature, 290, pp. 591-93 (1981)

D. Owerbach et al., "Detection Of HLA-D/DR-Related DNA Polymorphism In HLA-D Homozygous Typing Cells", <u>Proc. Natl. Acad. Sci. USA</u>, 80, pp. 3758-61 (June 1983)**

^{*} The publication date of this document postdates the priority dates to which the present application is entitled under 35 U.S.C. §§ 119 and 120.

^{**} The publication date of this document postdates the priority dates to which the present application is entitled under 35 U.S.C. §§ 119 and 120.

- Ploegh et al., "Molecular Cloning Of A Human Histocompatibility Antigen cDNA Fragment", <u>Proc. Natl. Acad. Sci. USA</u>, 77, pp. 6081-85 (October 1980)
- V. Quaranta et al., <u>J. Immunol.</u>, 125, p. 1421-25 (1980)
- L. P. Ryder et al., "Genetics Of HLA Disease Association", <u>Ann. Rev. Genet.</u>, 15, pp. 169-87 (1981)
- T. Sasazuki et al., "The Association Between Genes In The Major Histocompatibility Complex And Disease Susceptibility", <u>Ann. Rev. Med.</u>, 28, pp. 425-52 (1977)
- D. A. Shackelford et al., Proc. Natl. Acad. Sci. U.S.A., 78, pp. 4566-70 (1981) [Shackelford I]
- D. A. Shackelford et al., <u>Immunol. Rev.</u>, 66, pp. 133-87 (1982) [Shackelford II]
- S. Shaw et al., <u>J. Exp. Med.</u>, 156, pp. 731-43 (September 1982)
- A. Sood et al., "Isolation And Partial Nucleotide Sequence Of A cDNA Clone For Human Histocompatibility Antigen HLA-B By Use Of An Oligodeoxynucleotide Primer", Proc. Natl. Acad. Sci. USA, 78, pp. 616-20 (1981)
- J. L. Strominger et al., in <u>The Role Of The Major Histocompatibility Complex In Immunobiology</u>, M. Dorf, ed., Garland Publishing, pp. 115-72 (1981)
- R. Tosi et al., <u>J. Exp. Med.</u>, 148, pp. 1592-1611 (1978)
- Y. Wai Kan et al., "Polymorphism Of DNA Sequences Adjacent To Human ß-globin Structural Gene: Relationship To Sickle Mutation", <u>Proc. Natl. Acad. Sci. USA</u>, 75, pp. 5631-35 (1978)
- K. Wiman et al., "Isolation and Identification Of A cDNA Clone Corresponding To An HLA-DR Antigen Beta Chain", Proc. Natl. Acad. Sci. USA, 79, pp. 1703-07 (March 1982)

The listed documents were cited by applicants or the Examiner in parent application Serial No. 07/902,999, filed June 23, 1992 (now allowed) and its parent application Serial No. 06/518,393, filed July 29, 1983 (nc / United States patent 5,169,914). Accordingly, pursuant to 37 C.F.R. § 1.98(d), copies of the cited documents are not enclosed.

It is respectfully requested that these documents be
(1) fully considered by the Examiner during the course of
examination of this application, (2) listed on the "Notice of
References Cited" issued in this application, and (3) printed on
any patent issuing from this application. Applicants request

that a copy of Form PTO-1449, as reviewed and initialed by the Examiner, be returned with the next communication.

Applicants are submitting this Information Disclosure Statement within three months of the filing date of the present application. Accordingly, pursuant to 37 C.F.R. § 1.97(b), no fee is required in connection with this Information Disclosure Statement. However, the Commissioner is hereby authorized to charge all fees required in connection with this Information Disclosure Statement to Deposit Account No. 06-1075. A duplicate copy of this Information Disclosure Statement is enclosed.

Respectfully submitted,

James F. Haley, Jr. (Reg. No. 27,794) Margaret A. Pierri (Reg. No. 30,709)

Attorneys for Applicants

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A Hereby Certify that this
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Name of Person Signing
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner

: Not Yet Assigned

Group

1805

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Applicants

Bernard F. Mach et al.

Serial No.

08/484,786

Filed

: June 7, 1995

For

DNA SEQUENCES CODING FOR THE DR B-CHAIN LOCUS OF THE HUMAN LYMPHOCYTE ANTIGEN COMPLEX AND POLYPEPTIDES, DIAGNOSTIC TYPING

PROCESSES AND PRODUCTS RELATED THERETO

New York, New York August 30, 1995

Hon. Assistant Commissioner
 for Patents
Washington, D.C. 20231

STATEMENT UNDER 37 C.F.R. §§ 1.56 AND 1.97

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97, applicants, through their attorneys, make of record the following documents:*

United States Patents

Sanderson et al., 4,478,823, issued October 23, 1984

Erlich, 4,582,788, issued April 15, 1986

Erlich, 5,110,920, issued May 5, 1992

^{*} For the convenience of the Examiner, a completed Form PTO-1449, listing each of these documents, is attached.